

The settlement of Mussel larvae (*Mytilus galloprovincialis* Lmk.) in Limski Kanal in the Northern Adriatic Sea

by

MIRJANA HRS-BRENKO

Center for Marine Research, « R. Bosković » Institute, Rovinj (Yougoslavie)

The preliminary investigations on the settlement of mussel larvae (*Mytilus galloprovincialis* Lmk.) in cultivated areas in the Northern Adriatic Sea were carried on in Limski kanal from 1961 to 1963. Due to limited space only most important data are figured in this paper.

Two or three collectors (small pieces of concrete inserted in nylon rope) were suspended in the sea water monthly from February 1961 to August 1963. The length of each mussel and the total number of specimens settled on each collector was established at intervals from 2.5 to 5.5 months.

The mussel spat from collectors which were collected from the sea water at the same month but in different years (June 1961, 1962 and 1963) showed the similar size-frequency distribution of the specimens (Fig. 1). This indicates that the season of the mussel settlement occurred approximately at the same time during the three years' observations.

The growth rate of spat was proved by inspection of the series of collectors exposed at the same time and later analysed at monthly intervals (series of March 1961, February 1962 and 1963). The rapid growth of mussels was observed on the collector which was analysed in mid-August 1961, when the greatest mussel reached 24 mm in length, and the mean length of the spat was about 12.82 mm (Fig. 1).

According to results of these observations it appears that the peak of settlement of mussels in Limski kanal occurs in April. The spat was not observed with naked eye on the collectors in mid-April 1962, but in 1963 when the concrete pieces were analysed by stereo-microscope the spat ranging from 1 to 2 mm was found on them. In May the majority of mussels were classified into 1st and 2nd length class. Some specimens reached 8 and 9 mm in length. After May the number of small mussels decreased until summer. No mussel spat was observed with naked eye on collectors in the autumn and winter 1961 and 1962.

The maximum of the settled mussels coincided with the bloom of green algae *Enteromorpha* sp. which heavily developed on the concrete pieces. On the filaments of algae mussels smaller than 1 mm were observed to crawl. They were transparent with slight red-violet edge of their shells. On the settlement of young mussels on the filamentous algae reported also BLOC & GEELLEN [1958], BAYNE [1964] and BØHLE [1971]. On the concrete pieces, the mussels were found numerous in the holes, in less quantities on their smooth surfaces, while no one mussel has settled on nylon rope.

References

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NUMBER OF MUSSELS SPAT

